

Claims

- [001] Method of selective etching comprising:
- providing a first material selected from a group A on a substrate
- providing a second material selected from a group B on a substrate
- selectively etching said first material with a selectivity of at least 2:1 towards said second material by a liquid etchant flowing across the substrate surface at a flow sufficient fast to generate a mean velocity v parallel to the substrate's surface of minimum 0,1m/s
- [002] Method of claim 1 wherein said liquid is dispensed onto the substrate in a continuous flow and spread over the substrate's surface
- [003] Method of claim 2 wherein the point of impact of the liquid stream is moved across the surface of the substrate in a time sequence.
- [004] Method of claim 2 wherein said liquid is dispensed at a volume flow of at least 0,05 l/min (especially at least 0,5 l/min).
- [005] Method of claim 1 wherein said substrate is rotated while exposed to said liquid etchant.
- [006] Method of claim 1 wherein group A comprises materials with a high dielectric constant.
- [007] Method of claim 1 wherein group B comprises silicon dioxide, silicon.
- [008] Method of claim 1 wherein the second material is silicon dioxide and the liquid etchant comprises fluoride ions.
- [009] Method of claim 1 wherein said first material is subjected a pretreatment in order to damage the material's structure.
- [010] Method of claim 9 wherein said pretreatment is an energetic particle bombardment.
- [011] Method of claim 1 wherein said liquid etchant is selected from a group comprising
- a solution comprising fluoride ions and an additive for lowering dielectric constant of said solution,
- an acidic, aqueous solution comprising fluoride ions.
- an acidic, aqueous solution comprising fluoride ions and an additive for lowering dielectric number e.g. an alcohol.
- [012] Method of claim 11 wherein said liquid etchant comprises an analytical concentration of less than 0,01 mol/l of fluoride ions, wherein said analytical c on-

centration is calculated as F^- .

- [013] Method of claim 1 wherein said liquid etchant comprises fluoride ions and has a pH value of below 3.